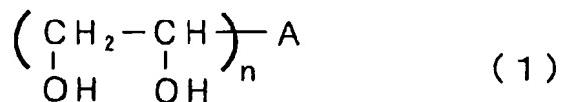


## **CLAIMS**

1. A copper electrolytic solution containing as an additive a compound having a specific skeleton represented by General Formula (1) below, which is obtained by an addition reaction in which water is added to a compound having in a molecule at least one epoxy group:

### [Chemical Formula 1]

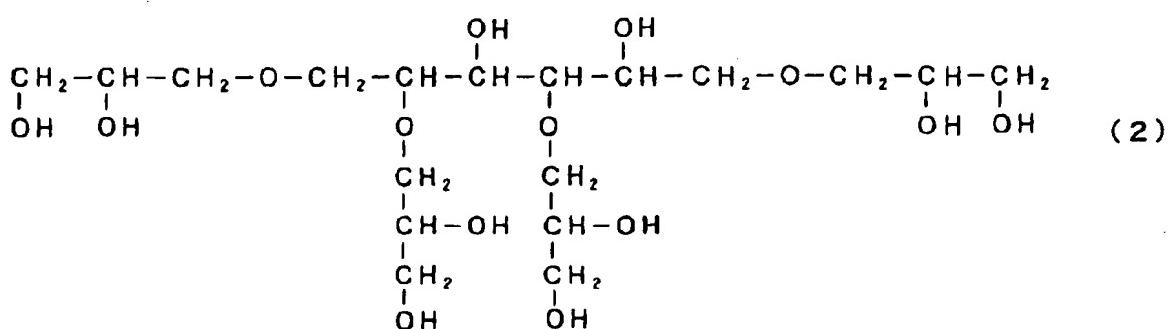


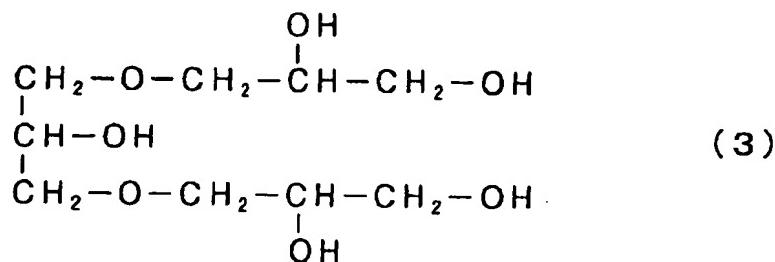
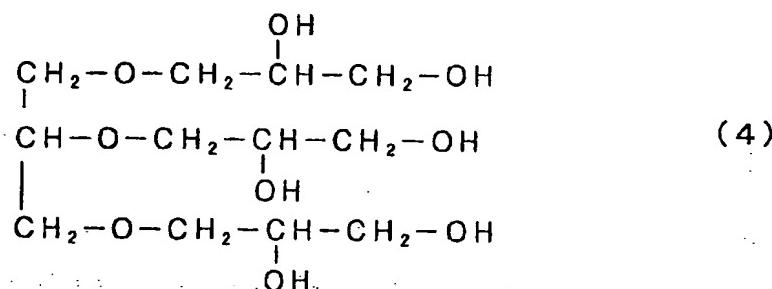
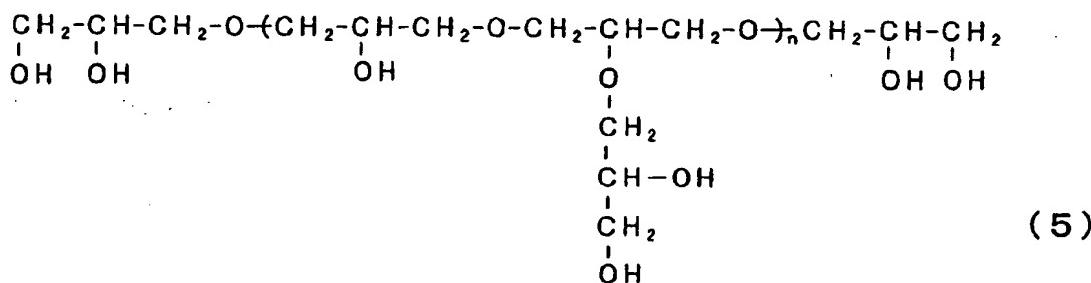
wherein A is an epoxy compound residue and n is an integer 1 or more.

2. The copper electrolytic solution according to Claim 1, wherein the epoxy compound residue A of said compound having the specific skeleton has a linear ether bond.

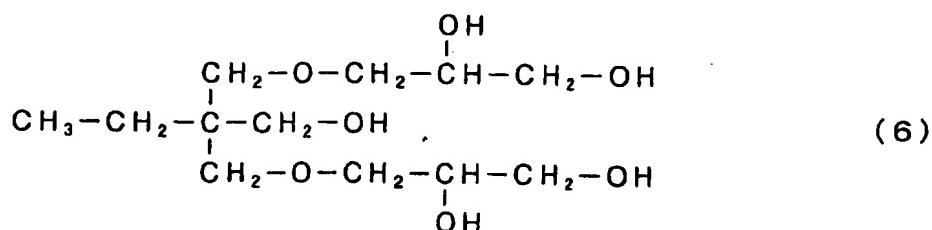
3. The copper electrolytic solution according to Claim 1 or 2, wherein said compound having a specific skeleton includes any of compounds represented by chemical formulae (2) through (9) below.

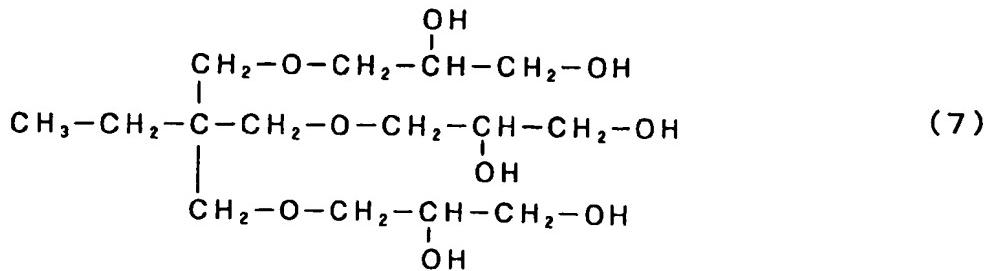
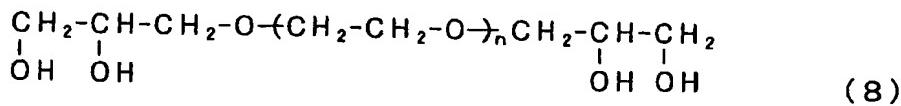
### [Chemical Formula 21]



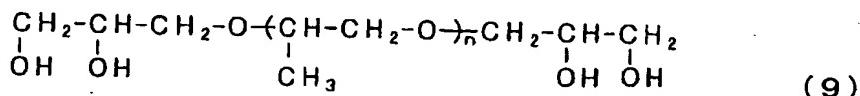
**[Chemical Formula 3]****[Chemical Formula 4]****[Chemical Formula 5]**

wherein n is an integer of 1 to 5.

**[Chemical Formula 6]**

**[Chemical Formula 7]****[Chemical Formula 8]**

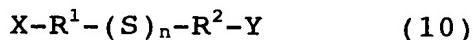
wherein n is an integer of 1 to 22.

**[Chemical Formula 9]**

wherein n is an integer of 1 to 3.

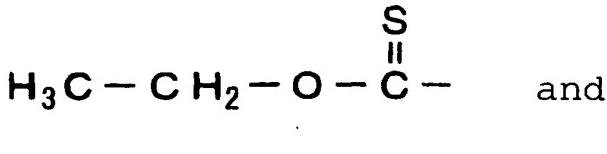
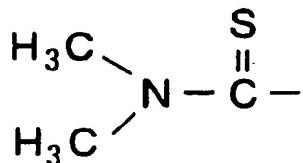
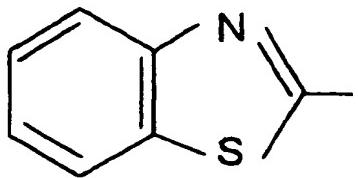
4. A copper electrolytic solution according to any one of Claims 1 through 3, wherein said copper electrolytic solution contains an organic sulfur compound.

5. The copper electrolytic solution according to Claim 4, wherein said organic sulfur compound is a compound represented by General Formula (10) or (11) below:



wherein in formulae (10) and (11), R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are alkylene groups with 1 through 8 carbon atoms, R<sup>4</sup> is selected from the group consisting of hydrogen and

**[Chemical Formula 10]**



X is selected from the group consisting of hydrogen, a sulfonic acid group, a phosphonic acid group, and an alkali metal salt group or ammonium salt group of sulfonic acid or phosphonic acid, Y is selected from the group consisting of a sulfonic acid group, a phosphonic acid group, and an alkali metal salt group of sulfonic acid or phosphonic acid, Z indicates hydrogen or an alkali metal, and n is 2 or 3.

6. An electrolytic copper foil manufactured using the copper electrolytic solution according to any one of Claims 1 through 5.

7. A copper clad laminate formed using the electrolytic copper foil according to Claim 6.

8. A printed wiring board manufactured using the copper electrolytic solution according to any one of Claims 1 through 5.

9. A printed wiring board wherein the printed wiring board according to Claim 8 is a 2-layer flexible substrate.